

REMARKS

In the Final Office Action, mailed on August 31, 2007, as per the summary sheet, the Examiner rejected claims 1, 3-15, 17-21, 38 and 40-43.

Claims 1, 3-5, 7-15, 18-21, 38, 40, 41, and 43 were rejected under 35 U.S.C. 103(a), as being unpatentable over Bossel (U.S. Patent 6,344,290 B1, hereinafter "Bossel"), in view of Oko et al. (U.S. Patent 6,218,038 B1, hereinafter "Oko") as evidenced by Wygnaski (U.S. Patent 7,021,603 B3, hereinafter "Wygnaski"), as per page 3 of the Office Action. Claims 6, 17, and 42 were rejected under 35 U.S.C. 103(a) as being unpatentable over Bossel in view of Oko as applied to claims 1, 11 and 38, and further in view of Hsu (U.S. Patent 5,833,822, hereinafter "Hsu"), as per page 6 of the Office Action.

By present paper, Applicant has amended the claims 1, 11 and 38 for clarification of certain features to expedite allowance of the present application. These amendments do not add any new matter.

Upon entry of these amendments, claims 1, 3-15, 17-21, 38 and 40-43 remain pending in the present application and are believed to be in condition for allowance. In view of the foregoing amendments and the following remarks, Applicant respectfully requests reconsideration and allowance of all pending claims.

Amendments to claims:

Claims 1, 11 and 38 have been amended to stipulate, *inter alia*, that the recited jumper short circuits a fuel cell.

Paragraph 31 of the application as filed reads: "[w]hen coupled in position, jumpers 110 electrically connect a pair of adjacent interconnects 14 together such that the pair of interconnects are 'short-circuited'." Similar information is also mentioned in paragraph 30.

Thus the added claim recitations were described in the specification as filed and the amendments do not add any new subject matter.

Rejections Under 35 U.S.C. § 103

The Examiner rejected all independent claims 1, 11 and 38 under 35 U.S.C. 103(a), as being unpatentable over Bossel in view of Oko as evidenced by Wygnaski. On page 3 of the Final Office Action, the Examiner admitted that Bossel does not disclose a fuel cell isolation device. The Examiner argued that the magnetic valve assembly described in Oko could be coupled with fuel cell separators of Bossel to suggest a structure similar to instant invention. The Examiner, further noted that:

when there is no fluid flowing through a fuel cell, the MEA cannot electrochemically and cannot produce any current, therefore would isolate itself from other fuel cell.

Final Office Action, page 4.

Applicant respectfully disagrees with the Examiner on this point. When such a cell – not producing any current, is a part of a cell stack, it essentially leads to an open circuit among the fuel cells that are electrically connected the stack. The fuel cell stack thus cannot function normally.

As now recited in independent claims 1, 11 and 38, the fuel cell isolation device includes a jumper, that short circuits a pair of adjacent interconnects. This effectively bypasses the cell or in other words, electrically isolates it.

On page 3 of the Final Office Action, the Examiner alleged that the magnetic valve of Oko includes “a long flat piece” that functions similar to Applicant’s jumper. The Examiner however has not provided any reference to the alleged “long flat piece” or how it operates. Applicant has scrutinized Oko, but did not find any reference to a “long flat piece”. Moreover, even if Oko teaches interrupting flow within a fuel cell stack via a

“long flat piece”, Applicant can identify no component in Oko or the other cited references designed to short circuit a fuel cell.

Because Oko and the other references clearly lack a dual approach of electrically isolating (bypassing) the failed cell and stopping the flow of fuel (and/or oxidant) to the cell, they cannot establish a *prima facie* case of obviousness of the pending claims.

Conclusion

In view of the remarks and amendments set forth above, Applicant respectfully requests allowance of the pending claims. If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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